No. 7700074

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Bolero'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 15th day of September in the year of our Lord one thousand nine hundred and seventy-seven

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

FORM GR-470
(1-76)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
PLANT VARIETY PROTECTION OFFICE
NATIONAL AGRICULTURAL LIBRARY
BELTSVILLE, MARYLAND 20705

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY
XP-F87	BOLERO 9/7/77	PV NUMBER 7700074
2. KIND NAME	3. GENUS AND SPECIES NAME	FILING DATE 5-31-77 / TIME 11:00 A.M. P.M.
Garden Pea	Pisum Sativum	FEE RECEIVED $250- / DATE 5-31-77
4. FAMILY NAME (BOTANICAL)	5. DATE OF DETERMINATION	$250- / 5-31-77
Leguminosae	July, 1973	$250- / 9-7-77

6. NAME OF APPLICANT(S)	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	8. TELEPHONE AREA CODE AND NUMBER
Asgrow Seed Company	Kalamazoo, Michigan 49001	(616) 385-6605

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.)	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Delaware	March 22, 1968

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

John A. Batcha
Asgrow Seed Company
7000 Portage Road
Unit 9630-190-1
Kalamazoo, Michigan 49001

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [ ] 13D. Exhibit D, Additional Description of the Variety.

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [XX] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [ ] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? [ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

15. Does the applicant(s) agree to the publication of his/her (their) name(s) and address in the Official Journal? [XX] YES [ ] NO

16. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

3-9-77
(DATE)

John A. Batcha
(SIGNATURE OF APPLICANT)
John A. Batcha 00001

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, National Agricultural Library, Beltsville, Maryland 20705. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in Section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give (1), the genealogy, including public and commerical varieties, lines, or clones used, and the breeding method. (2), the details of subsequent stages of selection and multiplication. (3), the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4), evidence of stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties; (1) identify these varieties and state all differences objectively; (2) Attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form for all characteristics, for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe; such as; plant habit, plant color, disease resistance, etc.

14A If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled or published or the certificate has been issued. However, if the applicant specifies "NO", he may change his choice. (See Section 180.15 of the Regulations and Rules of Practice.)

Asgrow Seed Company
Garden Pea ~~XP-F87~~ BOLERO

7700074

EXHIBIT A--Origin and Breeding History of ~~XP-F87~~ BOLERO

The original cross, (XP-M12 x XP-77) x Puget, was made in the summer of 1968, and the F_1 was grown in Florida that winter. ~~XP-F87~~ BOLERO has been developed by straight selection from the above cross. Single plant selections were made through the F_6 in 1973, when it was determined that the line was breeding true and had potential as a commercial variety.

The line has actually been in replicated trials since 1973 and was designated as XP-F69 in January, 1975. Later that year, the number was changed to ~~XP-F87~~ BOLERO when it was realized that Asgrow sells a variety named Freezer 69 and this is often abbreviated F-69. This could lead to confusion and thus, the change was made.

The basic stock seed of ~~XP-F87~~ BOLERO has been developed by growing progenies of approximately 250 single plant selections. The progenies were very uniform, but any progeny suspected of being off-type in any way was eliminated. ~~XP-F87~~ BOLERO is a true breeding, stable line, and we have been able to find no segregation.

JDA
1/5/77

Asgrow Seed Company
Garden Pea ~~XP-F87~~ BOLERO

7700074

EXHIBIT B--Novelty Statement Concerning BOLERO ~~XP-F87~~

The pea variety most similar to ~~XP-F87~~ BOLERO to our knowledge is Puget. Comparative characteristics which make ~~XP-F87~~ BOLERO a different variety include, but are not restricted to, the following:

1. Puget has a shorter and more dense plant. In a side by side comparison, Puget was 50 cm. tall, and ~~XP-F87~~ BOLERO was 60 cm. The internodes of Puget are shorter, giving a more leafy, dense plant.
2. ~~XP-F87~~ BOLERO flowers on the 15th node; whereas, Puget flowers on the 17th or 18th node.
3. ~~XP-F87~~ BOLERO flowers about five or six days earlier than Puget. In 1976, in a trial planted on the same day, ~~XP-F87~~ BOLERO started to flower on June 9 and was judged to be in full flower on June 15; whereas, Puget did not start to flower until June 15 and was judged to be in full flower on June 20.
4. ~~XP-F87~~ BOLERO is earlier than Puget. The three-year average degree days to approximately 95 Tenderometer at Twin Falls was 1514 for ~~XP-F87~~ BOLERO and 1577 for Puget.

JDA
1/5/77

~~XP-F87~~

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-14 (5-15-74)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C (Pea)

OBJECTIVE DESCRIPTION OF VARIETY

PEA *(PISUM SATIVUM)*

NAME OF APPLICANT(S)

Asgrow Seed Company

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

Kalamazoo, Michigan 49001

VARIETY NAME OR TEMPORARY DESIGNATION

BOLERO ~~XP-F87~~

FOR OFFICIAL USE ONLY

PVPO NUMBER 7700074

Place the appropriate number that describes the varietal character in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. TYPE:

[1] 1 = GARDEN 2 = FIELD 3 = EDIBLE-PODDED

2. MATURITY:

[1][5] Node number of first bloom: [0][7][3] No. of days to processing [1][5][1][4] Heat Units

[ ][ ] No. of days *Earlier* than . . . [ ] 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

[0][5] No. of days *Later* than . . . . [4] 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

3. PLANT HEIGHT:

[0][6][7] CM. HIGH

[ ][ ] Cm. *Shorter* than . . . . . [ ] 1 = ALASKA WR 2 = THOMAS LAXTON WR 3 = LITTLE MARVEL

[0][7] Cm. *Taller* than . . . . . [4] 4 = WANDO 5 = ALDERMAN WR 6 = AUSTRIAN WINTER

4. VINE:

[1] Habit: 1 = DETERMINATE 2 = INDETERMINATE [2] Stockiness: 1 = SLIM (Alaska) 2 = MEDIUM (Thomas Laxton WR) 3 = HEAVY (Alderman)

[2] Branching: 1 = NONE (Alaska) 2 - 1–2 BRANCHES (Little Marvel) 3 = MORE THAN 2 BRANCHES (Dwarf Gray Sugar

[2] Internodes: 1 = STRAIGHT 2 = ZIG ZAG [1][9] NUMBER OF NODES

5. LEAFLETS:

[2] Color: 1 = LIGHT GREEN (Alaska WR) 2 = MED. GREEN (Thomas Laxton WR) 3 = DARK GREEN (Alderman) 4 = OTHER (Specify)

[2] Wax: 1 = NONE 2 = LIGHT 3 = MEDIUM 4 = HEAVY [2] 1 = NOT MARBLED 2 = MARBLED (Alaska)

[3] Number of leaflet pairs: 1 = NOT PAIRED 2 = ONE 3 = TWO 4 = THREE OR MORE

6. STIPULES:

[2] 1 = LACKING 2 = PRESENT [1] 1 = NOT CLASPING 2 = CLASPING

[2] 1 = NOT MARBLED 2 = MARBLED [3] Size (Compared with leaflets): 1 = SMALLER 2 = SAME 3 = LARGER

[2] Color (Compared with leaflets): 1 = LIGHTER 2 = SAME 3 = DARKER

7. FLOWER COLOR:

[1] VENATION [1] STANDARD [1] WING [1] KEEL 1 = WHITE 2 = GREENISH 3 = LAVENDER 4 = PURPLE 5 = RED 6 = OTHER (Specify) _____

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7700074

XP-F87

8. PODS:

[1] Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

[2] End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)

[3] Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Alderman) 4 = OTHER (Specify) _____

[1] Surface: 1 = SMOOTH 2 = ROUGH

[1] Surface: 1 = SHINY 2 = DULL

[5] Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPEE 5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) _____

[0 8] CM. LENGTH

[1 3] MM. WIDTH (Between sutures)

[0 8] NO. SEEDS PER POD

9. SEEDS (95–100 Tenderometer):

[3] Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) _____

Seive: %

1	2	3	4	5	6	7	8	AVERAGE
0 6	1 2	2 8	3 3	2 1				3 5 1

SEEDS (Dry, Mature):

[2] Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED

[3] Surface: 1 = SMOOTH 2 = DIMPLED 3 = WRINKLED

[2] Surface: 1 = SHINY 2 = DULL

[1] Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED

[2] Primary Color: 1 = CREAMY–WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN 5 = DARK GREEN 6 = BLUE–GREEN 7 = YELLOW 8 = BROWN 9 = RED

[ ] Secondary Color: 10 = GRAY 11 = BLACK

[1] Hilum Floor Color: 1 = WHITE 2 = TAN 3 = BLACK

[1] Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE

[1 8] GRAMS PER 100 SEEDS

10. DISEASE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[2] FUSARIUM WILT	[1.5] * NEAR–WILT	[0] DOWNY MILDEW
[0] ASCOCHYTA BLIGHT	[0] POWDERY MILDEW	[0] BACTERIAL BLIGHT
[0] MOSAIC	[0] PEA ENATION MOSAIC	[0] YELLOW BEAN MOSAIC

[ ] OTHER (Specify) * Very tolerant to near wilt, but not resistant

11. INSECT: (0= Not Tested; 1 = Susceptible; 2 = Resistant)

[0] APHIDS

[0] OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	PUGET	Fresh Seed Color	PUGET
Leaf Color	PUGET	Mature Seed Color	PUGET
Pod Color	PUGET XP-F87 sl.darker	Seed Shape	PUGET
Pod Shape	PUGET	Plant Habit	PUGET

COMMENTS:

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7700074 ~~XP-F87~~ BOLERO

8. PODS:

[1] Shape: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

[2] End: 1 = POINTED (Alderman) 2 = BLUNT (Alaska)

[3] Color: 1 = LIGHT GREEN (Alaska WR) 2 = MEDIUM GREEN 3 = DARK GREEN (Aldermon) 4 = OTHER (Specify) _____

[1] Surface: 1 = SMOOTH 2 = ROUGH

[1] Surface: 1 = SHINY 2 = DULL

[5] Borne: 1 = SINGLE 2 = DOUBLE 3 = SINGLE AND DOUBLE 4 = SINGLE, DOUBLE, & TRIPEE 5 = DOUBLE & TRIPLE 6 = TRIPLE 7 = OTHER (Specify) _____

[0 8] CM. LENGTH

[1 3] MM. WIDTH (Between sutures)

[0 8] NO. SEEDS PER POD

9. SEEDS (95–100 Tenderometer):

[3] Color: 1 = LIGHT GREEN 2 = GREEN 3 = DARK GREEN 4 = OTHER (Specify) _____

Selve: %	1	2	3	4	5	6	7	8	AVERAGE
	06	12	28	33	21				351

SEEDS (Dry, Mature):

[2] Shape: 1 = FLATTENED 2 = ANGULAR 3 = OVAL 4 = ROUNDED

[3] Surface: 1 = SMOOTH 2 = DIMPLED 3 = WRINKLED

[2] Surface: 1 = SHINY 2 = DULL

[1] Color Pattern: 1 = MONOCOLOR 2 = MOTTLED 3 = STRIPED 4 = DOTTED

[2] Primary Color: 1 = CREAMY–WHITE 2 = CREAM & GREEN 3 = LIGHT GREEN 4 = MEDIUM GREEN 5 = DARK GREEN 6 = BLUE–GREEN 7 = YELLOW 8 = BROWN 9 = RED

[ ] Secondary Color: 10 = GRAY 11 = BLACK

[1] Hilum Floor Color: 1 = WHITE 2 = TAN 3 = BLACK

[1] Cotyledon Color: 1 = GREEN 2 = YELLOW 3 = ORANGE

[1 8] GRAMS PER 100 SEEDS

10. DISEASE: (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[2]	FUSARIUM WILT	[1.5] *	NEAR–WILT	[0]	DOWNY MILDEW
[0]	ASCOCHYTA BLIGHT	[0]	POWDERY MILDEW	[0]	BACTERIAL BLIGHT
[0]	MOSAIC	[0]	PEA ENATION MOSAIC	[0]	YELLOW BEAN MOSAIC
[ ]	OTHER (Specify) * Very tolerant to near wilt, but not resistant				

11. INSECT: (0= Not Tested; 1 = Susceptible; 2 = Resistant)

[0] APHIDS

[0] OTHER (Specify) _____

12. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Leafiness	PUGET	Fresh Seed Color	PUGET
Leaf Color	PUGET	Mature Seed Color	PUGET
Pod Color	PUGET XP-F87 sl.darker	Seed Shape	PUGET
Pod Shape	PUGET	Plant Habit	PUGET

COMMENTS: